

west corner of the Campbell Building, corner Santa Fe and Iron Avenue, about midway to the top of the building, which is 35 feet high, tore out some brick, demolished a second-story window, and then exploded with a bang that resembled the noise made by the discharge of a large pistol, filling the air with balls of fire as large as baseballs, which floated away in all directions. Some of these balls followed trolley and electric-light wires in a snaky sort of manner and some simply floated off through the air independently of any objects near by. An electric switch box across the street was ripped open and a transformer destroyed, leaving the east side of the town in darkness.

The street was practically deserted, as it was after closing hours and a heavy rain was falling at the time, and fortunately no one was near enough to be injured, though the display was seen by quite a number of persons.

This occurred approximately two hours after a tornado had struck the town of Hoisington, Kans., 70 miles to the southwest, and was probably in the same storm cloud from which the tornado cloud originated.

#### LIGHTNING DEATH DURING KITE FLIGHT.

Mr. Charles H. Heckelsmiller, laborer, was killed by lightning at Ellendale, N. Dak., on August 28, 1919, while assisting in a kite flight. Immediate efforts for resuscitation were made and two physicians were on the scene within 15 minutes. A severe burn was found across Mr. Heckelsmiller's chest and on the inner side of his right wrist. The kite flight was nearly completed and three of the six kites had been landed. It appears that Mr. Heckelsmiller was holding a splice wire in his hand and was standing close to the main kite wire when the flash occurred. At the time of the flash two employees were in the reel house and they state that the house was filled with flame. A line of sparks resembling a huge skyrocket was seen to follow up the wire<sup>1</sup> and these set the grass beneath on fire, as the ground was very dry, no rain having fallen for nearly two weeks. About 1,750 meters of wire were out at the time, and it was completely fused in the air. This is the first accident of its kind that has occurred to an employee of the Weather Bureau during the period of about 25 years, in which the Weather Bureau has engaged in kite observation work.—*Weather Bureau Topics and Personnel*, August, 1919.

#### DEATH BY LIGHTNING.

[Abstracted from note in Symons's *Met'l. Mag.*, October, 1919, vol. 54, p. 104.]

Dr. A. G. Newell describes an interesting phenomenon in connection with the burns received by a man who was killed by a lightning stroke in London. The man and his wife were walking in the open, near a row of elm trees, when he was struck. The wife was momentarily stunned, but upon recovering she saw her husband standing erect with a blazing line up and down the back of his coat. He died immediately, and fell backward against an iron fence. Severe burns on his back indicated that he was struck from the right side of his back.

<sup>1</sup> I observed a similar line of white-hot beads when about 1,600 meters of wire was fused by lightning during a kite flight at Blue Hill Observatory, Mar. 6, 1913. The thunder was an even peal, since the lightning producing it had followed the smooth curve of the wire.—*C. F. Brooks*.

From the right shoulder and across the chest and down to the lower of the front of the abdomen impressions of branches and leaves were clearly imprinted on the skin, showing like an X-ray plate how certain rays of light were impeded by the branches and foliage, whilst others made the contours of these. There were two distinct branches with leaves, one occupying the space between the right iliac crest to near the ensiform cartilage and the other proceeding down on the left side from the stomach to the left iliac crest. To my mind it would appear as if these were implanted while the man was falling back with a flash coming over the right shoulder.—*C. L. M.*

#### EFFECT OF LIGHTNING ON THE HUMAN BODY.

By DR. LADISLAUS VON SZALAY-UFJALUSSY.

[Abstracted from *Meteorologische Zeitschrift*, July-August, 1918, vol. 35, pp. 192-194.]

Those who are killed by lightning always have marks upon their bodies. A photograph of a dendritic pattern on a woman's back is reproduced. Where marks are lacking, there is some question as to whether they were actually killed by the lightning or by the sudden shock, which would result in heart failure or failure of other organs to continue to function. It is also true that in such cases the victims are generally found lying on their backs. This tends to give weight to the argument that their eyes were directed so as to see the lightning, and thus to cause the falling backward. The author strongly contends that the psychological element has a large influence on the fatality of the stroke, citing the cases where small children were uninjured, although the mother who held them in her arms was killed; and, also, the fact that sleeping or drunken people are less frequently victims of lightning.—*C. L. M.*

#### EFFECT OF LIGHTNING ON CONCRETE BRIDGE.

The *Engineering News-Record* of July 10, 1919 (pp. 68-69), tells of the effect produced upon a concrete bridge at Iowa City, Iowa, by a stroke of lightning on June 9, 1919. The bridge had a sidewalk between the roadway and a handrail, which was supported by half-inch steel rods, both laterally and longitudinally. The force of the lightning apparently acted between the handrail and the sidewalk, with the result that the handrail was displaced toward the north and the sidewalk toward the south, the rupture being 96 feet in length. One of the curious features noted was the pulling apart of the steel rods, and then freeing them from the concrete medium in which they were held while the pulling took place. This is shown by the fact that parts of the steel rods found in the conduit beneath the sidewalk were absolutely free from concrete, except for a very thin skin coat.—*C. L. M.*

#### LIGHTNING HOLES.

On the shore of Lake Congamond, Southwick, Mass., in July, 1917, Mr. R. Marsh states that lightning struck on the water's edge, making a hole about a foot in diameter, then went under ground 6 feet, and came out in another hole about the same size, throwing ashes to the tree-tops. Other branches of the lightning hole came to the surface in smaller openings.—*C. F. B.*